



WASHINGTON STATE DEPARTMENT OF  
**Natural Resources**

COUNTY OR MUNICIPALITY **RECEIVED**  
**APPROVAL FOR**  
**SURFACE MINING** APR 19 2004  
(Form SM-6) Geology and Earth

AUG 29 2003

<b>NAME OF COMPANY OR INDIVIDUAL APPLICANT(S)</b> Same as name of the exploration permit holder. (Type or print in ink.)  Delbert Field		<b>Geology and Earth</b> <b>TOTAL ACRES AND DEPTH OF PERMIT AREA</b> (Include all acreage to be disturbed by mining, setbacks, and buffers, and associated activities during the life of the mine.) (See SM-8A.) Total area disturbed will be <u>49.09</u> acres Maximum vertical depth below pre-mining topographic grade is <u>185</u> feet Maximum depth of excavated mine floor is <u>11880</u> feet relative to mean sea level										
<b>MAILING ADDRESS</b>  3422 Highway 231 Valley, WA 99181  Telephone (509) 937-4622		<b>COUNTY</b> <u>STEVENS</u> No attachments will be accepted. Legal description of permit area:										
		1/4	1/4	Section	Township	Range						
		GOVT LOT 3		2	30 N	40 E						
		GOVT LOT 4		2	30 N	40 E						
		SW NW		2	30 N	40 E						
SE NW		2	30 N	40 E								
<b>Proposed subsequent use of site upon completion of reclamation</b>  TIMBERLAND												
<b>Signature of company representative or individual applicant(s)</b>  		<b>Name and title of company representative (please print)</b> Delbert Field Owner			<b>Date signed</b> 8-4-03							
<b>TO BE COMPLETED BY THE APPROPRIATE COUNTY OR MUNICIPALITY:</b>												
Please answer the following questions 'yes' or 'no'. 1. Has the proposed surface mine been approved under local zoning and land-use regulations? 2. Is the proposed subsequent use of the land after reclamation consistent with the local land-use plan/designation?  When complete, return this form to the appropriate Department of Natural Resources regional office.						<table border="1"><tr><td>Yes</td><td>No</td></tr><tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr><tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr></table>	Yes	No	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Yes	No											
<input checked="" type="checkbox"/>	<input type="checkbox"/>											
<input checked="" type="checkbox"/>	<input type="checkbox"/>											
<b>Name of planning director or administrative official (please print)</b> Jenni M Anderson		<b>Address</b> Mailing: 215 S. Oak-- Courthouse Annex Street: 260 S. Oak-- Courthouse Annex Colville, WA 99114										
<b>Signature</b> 		Change of acreage reviewed on 4/13/04  Planning Supervisor										
<b>Title (please print)</b> Interim Planning Director												
<b>Telephone</b> 509-684-2401		<b>Date</b> 8/4/03		<b>DNR Reclamation Permit No.</b> 70-013029								

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**APPLICATION FOR RECLAMATION PERMIT  
FORM SM-8A**

Check appropriate box(es): ☒ new permit ☐ revision of existing permit ☐ transfer of permit ☐ expansion

**NOTE: Do not attempt to complete this form until you have carefully read the accompanying instruction document (SM8AINST.PDF). Do not attempt to use this form as an MS Word Template unless you are familiar with the use of templates in MS Word.**

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1. NAME OF APPLICANT/PERMIT HOLDER(S) Delbert Field					12. Are all of these mines now in compliance with RCW 78.44, WAC 332-18, and conditions of the permits? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no				
2. MAILING ADDRESS 3422 Hwy 231 Valley, WA. 99181					13. Have you ever had a surface mine operating or reclamation permit revoked? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no				
					Have you ever had a reclamation security forfeited? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no If you answered yes to either of the above, list the permit number(s):				
3. Telephone 509-937-4622 UBI No. 601-236532					14. Type of proposed or existing mine: <input type="checkbox"/> pit <input checked="" type="checkbox"/> quarry Material(s) to be mined: <input checked="" type="checkbox"/> sand and gravel <input type="checkbox"/> rock or stone <input type="checkbox"/> clay <input type="checkbox"/> metal <input type="checkbox"/> limestone <input type="checkbox"/> silica <input type="checkbox"/> other _____				
4. NAME OF MINE Field Quarry					Deposit type: <input checked="" type="checkbox"/> glacial <input type="checkbox"/> river floodplain (alluvial) <input type="checkbox"/> river channel deposits <input type="checkbox"/> talus <input type="checkbox"/> bedrock <input type="checkbox"/> lode <input type="checkbox"/> unknown <input type="checkbox"/> other _____				
5. Street address and milepost of surface mine 3400 Hwy 231 Valley, WA. 99181					15. Total Acreage and Depth of Permit Area: (Include all acreage to be disturbed by mining, setbacks, buffers, and associated activities during the life of the mine.) (See Form SM-6.)  Total area disturbed will be 40.9 acres. Area to be disturbed in next 36 months will be 10 acres.  Maximum vertical depth below pre-mining topographic grade is 185 feet. Maximum depth of excavated mine floor is 1880 feet relative to mean sea level				
6. Distance (miles) 5		7. Direction from South		8. Nearest community Valley		16. Expected start date of mining 9/01/03		17. Estimated number of years 30	
18. Total quantity to be mined over life of mine (estimated): 3,500,000		<input type="checkbox"/> tons, or <input checked="" type="checkbox"/> cu yds		19. Estimated annual production: 50,000		<input type="checkbox"/> tons, or <input checked="" type="checkbox"/> cu yds			
9. COUNTY Stevens No attachments will be accepted. Legal Description of permit area: 1/4 1/4 Section Township Range					20. Subsequent land use: <input type="checkbox"/> industrial <input type="checkbox"/> commercial <input type="checkbox"/> residential <input type="checkbox"/> agricultural <input checked="" type="checkbox"/> forestry <input type="checkbox"/> wetlands and lakes <input type="checkbox"/> Other _____  Reclaimed elevation of floor of mine: 1900 feet relative to mean sea level  Reclaimed elevation is shown on cross sections? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no  Subsequent land use is compatible with County or Municipal comprehensive plan? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no  County or Municipality Approval for Surface Mining (Form SM-6) attached? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no  SEPA Checklist required? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no  If any answers are no, explain: _____				
10. TOTAL ACREAGE OF PERMIT AREA APPLIED FOR (include all acreage to be disturbed by mining, setbacks, buffers, and associated activities during the life of the mine.) 40.9 acres									
11. Do you or any person, partnership, or corporation associated with you now hold, or have you held, a surface mining operating or reclamation permit? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no									
If you answered yes to the above, please list:									
Permit Number		Active Operation?		Reclamation current/complete?					
		Yes	No	Yes	No				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
21. Application fee for a new reclamation permit is herewith attached? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no									

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# CHECKLIST OF RECLAMATION STANDARDS

## 22. SEGMENTAL RECLAMATION

Permit area has been divided into segments for mining and a mining schedule has been developed? ☒ yes ☐ no  
If no, explain:

Permit area has been divided into segments for reclamation and a reclamation schedule has been developed? ☒ yes ☐ no  
If no, explain:

## 23. SITE PREPARATION

### 23A. Permit and Disturbed Area Boundaries

Boundary of the permit area has been marked on the ground with permanent boundary markers? ☒ yes ☐ no  
Explain boundary markers: **Corner markers are 5/8" rebar with 1/2" aluminum cap**

### 23B. Saving Topsoil, Subsoil, and Overburden for Reclamation

Thickness of topsoil is 0-1 feet  
Thickness of subsoil is 0-50 feet  
Depth to bedrock is 0-50 feet  
Total volume of topsoil is 20,000 cubic yards  
Total volume of subsoil is 52,000 cubic yards  
Volume of stored topsoil/subsoil is 2,500 cubic yards and will require 1.5 acres for storage.

Storage areas are shown on maps and have been marked on the ground with permanent boundary markers? ☒ yes ☐ no

Topsoil will be salvaged? ☒ yes ☐ no  
If no, explain:

Topsoil and overburden will be moved to reclaim an adjacent depleted segment? ☒ yes ☐ no  
If no, explain:

Before materials are moved, vegetation will be cleared and drainage planned for soil storage areas? ☒ yes ☐ no  
If no, explain:

Soil storage areas will be stabilized with vegetation to prevent erosion if materials will be stored for more than one season? ☒ yes ☐ no  
If no, explain:

### 23C. Setbacks and Screens

Maximum depth of the mine will be 270 feet from 2150 feet (*highest*) to 1880 feet (*lowest*) elevation relative to mean sea level..

The setback for this site will be 30 feet wide.

Is a permanent, undisturbed buffer planned for this site? ☐ yes ☒ no  
If no, explain: **Reclamation will result in a recontoured slope with no impact on adjacent non-disturbed land owned by proponent.**

Setbacks are shown on maps and have been marked on the ground with permanent boundary markers? ☐ yes ☒ no  
If no, explain: **No setback will be necessary.**

# CHECKLIST OF RECLAMATION STANDARDS

Does this site have a backfilling plan that addresses the protection of adjacent property and how the final, stable slopes are to be achieved? ☐ yes ☒ no  
 If no, explain: **Backfill will not be necessary**

## 23D. Buffers to Protect Streams and Flood Plains No Streams

If yes, see "Additional Information Requirements for Flood Plain Mines." This document is included in the SM8AINST.PDF file.

A stream buffer of at least 200 feet has been marked on the ground with permanent boundary markers? ☐ yes ☒ no

A buffer of at least 200 feet from the 100-year flood plain has been marked on the ground with permanent boundary markers? ☐ yes ☒ no

If no, explain: **No Streams**

Copy of Shoreline Permit from local government or the Dept of Ecology is attached? ☐ yes ☒ no

Hydraulic Project Approval from the Department of Fish and Wildlife is attached? ☐ yes ☒ no

## 23E. Conservation Buffers

Conservation buffers will be established for the following purpose(s): (Check all that apply)

☐ unstable slopes ☐ wildlife habitat ☐ water quality ☐ other \_\_\_\_\_

Describe the nature and configuration of the conservation buffer(s): **No special sites, unique habitat or water quality issues within the permit area.**

Conservation setbacks are shown on maps and have been marked on the ground with permanent boundary markers? ☐ yes ☒ no

## 23F. Ground Water

High water table depth is \_\_\_\_\_ feet ☐ relative to mean sea level, ☐ below original surface, or ☒ unknown.

Low water table depth is \_\_\_\_\_ feet ☐ relative to mean sea level, ☐ below original surface, or ☒ unknown.

Annual fluctuation of water table is from \_\_\_\_\_ feet on \_\_\_\_\_ to \_\_\_\_\_ feet on \_\_\_\_\_.

Direction of ground water flow: \_\_\_\_\_

Are well logs attached? ☐ yes ☒ no

Is the aquifer perched? ☐ yes ☒ no

Is the shallowest aquifer: ☐ confined ☒ unconfined

The site will be mined: ☐ wet ☒ dry ☐ both

Describe mining method: **Excavation of Quarry.**

The site is in a:  
☐ critical aquifer recharge area ☐ sole source aquifer ☐ public water supply watershed  
☐ wellhead protection area ☐ special protection area ☐ designated aquifer protection area

Ground water study attached? ☐ yes ☒ no

If yes, see "Additional Information Requirements for Hydrologically Sensitive Areas." This document is included in the SM8AINST.PDF file.

If no, explain: **Water is well below excavation limits at valley floor.**

## 23G. Archeology

Are archeological/cultural resource sites present? ☐ yes ☒ no

If yes, describe how you will protect these resources:

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# CHECKLIST OF RECLAMATION STANDARDS

<b>24. MINING PRACTICES TO FACILITATE RECLAMATION</b>	
<b>24A. Soil Replacement</b>	
Topsoil will be saved? If no, explain:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Up to 4 feet of topsoil and (or) subsoil will be restored? If no, explain:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Topsoil will be restored and seedbeds prepared as necessary to promote effective revegetation and to stabilize slopes and mine floor? If "yes" give details, if "no", explain: <b>Topsoil will be replaced, seeded, and planted with ponderosa pine seedlings.</b>	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Subsoil will be replaced to an approximate depth of <u>1</u> feet on the pit floor and a depth of <u>1</u> feet on slopes.	
Topsoil will be replaced to an approximate depth of <u>1</u> feet on the pit floor and a depth of <u>1</u> feet on slopes.	
Topsoil will be distributed evenly over the site? If no, explain:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If topsoil is in short supply, it will be strategically placed in depressions and low areas in adequate thickness to conserve moisture and promote revegetation? If no, explain:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Topsoil will be moved when conditions are not overly wet or dry? If no, explain:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Topsoil will be imported? If yes, describe source. If no, explain: <b>If Necessary, topsoil will be imported from adjacent field.</b>	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Synthetic topsoil made from compost, biosolids, or other amendments will be used and (or) made on site to supplement existing topsoil? If yes, explain:	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Materials such as till, loess, and (or) silt are available on site that could be used to supplement topsoil for reclamation. If yes, explain:	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Silt from settling ponds or a filter press will be used for reclamation? If yes, explain:	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no

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Settling pond clay slurries will be pumped or hauled to other segments for reclamation? ☐ yes ☒ no  
If yes, explain:

Topsoil will be replaced with equipment that will minimize compaction, or it will be plowed, disked, or ripped following placement? ☒ yes ☐ no  
If no, explain:

Topsoil will be immediately stabilized with grasses and legumes to prevent loss by erosion, slumping, or crusting? ☒ yes ☐ no  
If no, explain:

Topsoil stockpile areas are shown on maps and will be marked on the ground with permanent boundary markers to protect from loss? ☒ yes ☐ no  
If no, explain:

Segmental topsoil removal and replacement is shown on maps? ☒ yes ☐ no  
If no, explain:

Topsoil salvage and replacement plan included? ☒ yes ☐ no  
If no, explain:

## 24B. Removal of Vegetation

Vegetation will be removed sequentially from areas to be mined to prevent unnecessary erosion? ☒ yes ☐ no  
If no, explain:

Small trees and other transplantable vegetation will be salvaged for use in revegetating other segments? ☐ yes ☒ no  
If yes, give details. If no, explain: **Vegetation not suitable for transplanting.**

Wood and other organic debris will be:  
☐ recycled ☐ removed from site ☐ chipped ☒ burned ☐ buried ☐ used to synthesize topsoil or mulch  
☐ other (explain)

Solid waste disposal, burning, and land use permits are attached? Will be obtaining at time of burning. ☐ yes ☒ no

Some coarse wood (logs, stumps) and other large debris will be salvaged for fish and wildlife habitats? ☐ yes ☒ no  
If yes, give details. If no, explain: **Not applicable to this site.**

## 24C. Erosion control for Reclamation

Pit floor will slope at gentle angles toward highwall, sediment retention pond, or proper drainage? ☒ yes ☐ no  
If yes, give details. If no, explain: **Pit will be sloped to control drainage.**

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Revegetation, sheeting, and (or) matting will be used to protect areas susceptible to erosion?  
If yes, give details. If no, explain: **Grass seeding will be don on all disturbed sites.**

Water control systems used for erosion control during segmental reclamation will:

Divert clean water around pit?

Trap sediment-laden runoff before it enters a stream?

Result in essentially natural conditions of volume, velocity, and turbidity?

Handle a 25-year, 24-hour peak event?

(Have you attached calculation?)

Be removed or reclaimed?

☐ yes ☒ no  
☐ yes ☒ no  
☒ yes ☐ no  
☒ yes ☐ no  
☐ yes ☒ no  
☐ yes ☒ no

If any answers are no, explain: Location of site and annual precipitation will result in essentially all runoff remaining on site and any flowing off site will filter through natural vegetation.

Will any water control systems be removed upon final reclamation?

If yes, explain:

☐ yes ☒ no

Water control measure will be established to prevent erosion of setbacks and neighboring properties?  
If yes, give details. If no, explain: **NOT NEEDED.**

☐ yes ☒ no

Storm-water conveyance ditches and channels will be lined with vegetation or riprap?  
If yes, give details. If no, explain: **Not applicable**

☐ yes ☒ no

Natural and other drainage channels will be kept free of equipment, wastes, stockpiles, and overburden?  
If no, explain: **No drainage channels on site**

☐ yes ☒ no

## 25. RECLAMATION TOPOGRAPHY

### 25A. Final Slopes

Final slopes will be created using the cut-and-fill method?  
Explain procedure to be used:

☐ yes ☒ no

Slopes will be created by mining to the final slope using the cut method?  
Explain procedure to be used: **Mining will occur in a method to produce final slope angel through excavation.**

☒ yes ☐ no

Slopes will vary in steepness?  
If no, explain:

☒ yes ☐ no

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Slopes will have a sinuous appearance in both profile and plan view? If no, explain:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Large rectilinear (that is, right angle, or straight, planar) areas will be eliminated? If no, explain:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Where reasonable, tracks of the final equipment pass will be preserved and oriented to trap moisture, soil, and seeds, and to inhibit erosion? If no, explain:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
<b>25B. Slope Requirements for Pits and Overburden/Waste Rock Dumps (non-saleable products)</b>	
<i>If the mine is a quarry or in hard rock, skip to Quarry section(25C).</i>	
Slopes will vary between 2 and 3 feet horizontal to 1 foot vertical or flatter, except in limited areas where steeper slopes are necessary to create sinuous topography and control drainage? If no, explain:	<input type="checkbox"/> yes <input type="checkbox"/> no
For pits, slopes will not exceed 2 feet horizontal to 1 foot vertical except as necessary to blend with adjacent natural slopes? Give details:	<input type="checkbox"/> yes <input type="checkbox"/> no
Slope stability analysis required? <i>If yes, see "Additional Information Requirements for Mines with Potentially Unstable or Steep Slopes." This document is included in the SM8AINST.PDF file.</i> Slope stability analysis provided by _____	<input type="checkbox"/> yes <input type="checkbox"/> no
<b>25C. Slope Requirements for Quarries and Hardrock Metal Mines</b>	
<i>If mine is a pit in unconsolidated materials covered by Section 25B, go to Section 25D</i>	
Check the appropriate box(es) <input checked="" type="checkbox"/> Slopes will not exceed 2 feet horizontal to 1 foot vertical. <input type="checkbox"/> Slopes steeper than 1 foot horizontal to 1 foot vertical are an acceptable subsequent land use as confirmed on Form SM-6. <input type="checkbox"/> Hazardous slopes or cliffs are indigenous to the immediate area and already present a potential threat to human life. Photo and maps attached to document presence of cliffs. <input type="checkbox"/> Geologic or topographic characteristics of the site preclude slopes being reclaimed at a flatter angle and are an acceptable subsequent land use as confirmed on Form SM-6.	
Slope stability analysis required? <i>If yes, see "Additional Information Requirements for Mines with Potentially Unstable or Steep Slopes." This document is included in the SM8AINST.PDF file.</i> Slope stability analysis provided by _____	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Measures will be taken to limit access to the top and bottom of hazardous slopes? Describe measures, or if no, explain: <b>Hazardous slopes do not exist on site and there is no public access to the site.</b>	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Selective blasting will be used to remove benches and walls and to create chutes, buttresses, spurs, scree slopes, and rough cliff faces that appear natural? Describe procedures, or if no, explain: <b>Not applicable to this site.</b>	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no

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Reclamation blasting will be used to reduce the entire highwall to a scree or rubble slope less than 2 feet horizontal to 1 foot vertical? Blasting plan is attached? If no, explain: <b>Not applicable</b>	<b>RECEIVED</b>  <b>APR 19 2004</b>	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Access to benches will be maintained for reclamation blasting? If no, explain: <b>Mining will occur o reclamation slope.</b>	<b>Geology and Earth</b>	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Small portions of benches will be left to provide habitat for raptors and other cliff-dwelling birds?		<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
<b>25D. Backfilling</b>		
Slopes will require backfilling?		<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Depth of backfilling is _____ feet.		
Slope stability compaction analysis required?		<input type="checkbox"/> yes <input type="checkbox"/> no
Compaction analysis provided by _____		
Backfilling plan and (or) permits are attached?		<input type="checkbox"/> yes <input type="checkbox"/> no
If no, explain:		
Backfilling will be done with overburden material after topsoil has been separated?		<input type="checkbox"/> yes <input type="checkbox"/> no
If no, describe composition and source of backfill material:		
Explain method of placement of fill:		
Locations of stockpiles are shown on maps and will be marked on the ground with permanent boundary markers?		<input type="checkbox"/> yes <input type="checkbox"/> no
Will backfill be imported?		<input type="checkbox"/> yes <input type="checkbox"/> no
If yes, give volumes needed to meet reclamation plan:		
Areas to be backfilled are shown on maps?		<input type="checkbox"/> yes <input type="checkbox"/> no
If no, explain:		
All grading/backfilling will be done with clean, inert, non-organic solids?		<input type="checkbox"/> yes <input type="checkbox"/> no
If yes, give details. If no, explain:		
Backfilled slopes will be compacted?		<input type="checkbox"/> yes <input type="checkbox"/> no
If yes, give details. If no, explain:		
Will you be backfilling into water?		<input type="checkbox"/> yes <input type="checkbox"/> no
If yes, is slope stability analysis attached?		<input type="checkbox"/> yes <input type="checkbox"/> no
If yes, describe method:		

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<b>25E. Mine Floors</b>		
Flat areas will be formed into gently rolling mounds? If yes, give details. If no, explain: <b>Area will be reclaimed to a gentle slope.</b>		<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Mine floor will be gently graded into sinuous drainage channels to preclude sheetwash erosion during intense precipitation? If yes, give details. If no, explain: <b>Area will have a gentle grade, which will preclude erosion problems.</b>		<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Mine floor and other compacted areas will be bulldozed, plowed, ripped, or blasted to foster revegetation? If yes, give details. If no, explain: <b>Site will be reclaimed with topsoil and replanted.</b>		<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
<b>25F. Lakes, Ponds, and Wetlands</b>		
Is water currently present in the area or will the mining penetrate the water table? <i>If no, go to Section 25G.</i>		<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Reclaimed areas below the permanent low water table in soil, sand, gravel, and other unconsolidated material will have a slope no steeper than 1.5 feet horizontal to 1 foot vertical? If yes, give details. If no, explain:		<input type="checkbox"/> yes <input type="checkbox"/> no
If not already present, soils, silts, and clay-bearing material will be placed below water level to enhance revegetation? If yes, give details. If no, explain:		<input type="checkbox"/> yes <input type="checkbox"/> no
Some parts of pond and lake banks will be shaped so that a person can escape from the water? If yes, give details. If no, explain:		<input type="checkbox"/> yes <input type="checkbox"/> no
Armored spillways or other measures to prevent undesirable overflow or seepage will be provided to stabilize bodies of water and adjacent slopes? If yes, give details. If no, explain:		<input type="checkbox"/> yes <input type="checkbox"/> no
Wildlife habitat will be developed, incorporating such measures as: Sinuous and irregular shorelines? Varied water depths? Shallow areas less than 18 inches deep? Islands and peninsulas? Give details:		<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> no
Ponds or basins will: Be located in stable areas? Have sufficient volume for expected runoff? Have an emergency overflow spillway?		<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> no

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Spillways and outfalls will be protected (for example, rock armor) to prevent failure and erosion?  
If any answers are no, explain:

☐ yes ☐ no

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Proper measures will be taken to prevent seepage from water impoundments that could cause flooding outside the permitted area or adversely affect the stability of impoundment dams or adjacent slopes?

☐ yes ☐ no

If yes, give details. If no, explain:

Written approval from other agencies with jurisdiction to regulate impoundment of water is attached?

☐ yes ☐ no

If no, explain:

## 25G. FINAL DRAINAGE CONFIGURATION

Drainage will be capable of carrying the peak flow of the 25-year, 24-hour precipitation event (*Data are available at DNR Region offices*)

☒ yes ☐ no  
☐ yes ☒ no

If yes, are calculations attached?

If yes, give details. If no, explain: **Final reclaimed site will have lower gradient slope than pre mining.**

Drainages will be constructed on each reclaimed segment to control surface water, erosion, and siltation?

☐ yes ☒ no  
☐ yes ☒ no

Clean runoff is directed to a safe outlet?

If either yes, give details. If no, explain: **Not necessary on this site.**

Are these shown on maps?

☐ yes ☒ no  
☐ yes ☒ no

The grade of ditches and channels will be constructed to limit erosion and siltation?

If yes, give details. If no, explain: **No ditches or channels needed**

Natural-appearing drainage channels will be established upon reclamation?

☐ yes ☒ no

If yes, give details. If no, explain: **Slope will be a gentle grade.**

## 26. SITE CLEANUP AND PREPARATION FOR REVEGETATION

### 26A. Dealing with Hazardous Materials

Hazardous materials are present at the mine site?

☐ yes ☒ no

*If no, go to Section 25B*

The final ground surface drains away from any hazardous natural materials?

☐ yes ☐ no

If yes, give details. If no, explain:

Plan for handling hazardous mineral wastes indigenous to the site is attached?

☐ yes ☐ no

If no, written approval from all appropriate solid waste regulatory agencies attached?

☐ yes ☐ no

### 26B. Removal of Debris

All debris (garbage, 'bone piles', treated wood, old mining equipment, etc.) will be removed from the mine site?

☒ yes ☐ no  
☒ yes ☐ no

All sheds, scale houses, and other structures will be removed from the site?

If either answer is yes, give details. If no, explain: **All equipment will be removed.**

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# CHECKLIST OF RECLAMATION STANDARDS

## 27. REVEGETATION

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The mine site is in: ☒ eastern Washington  
☐ western Washington

The mine site is: ☐ wet ☒ dry?

The average precipitation is 17" per year.

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Revegetation will start during the first proper growing season (fall for grasses and legumes, fall or late winter for trees and shrubs) following restoration of slopes?

☒ yes ☐ no

If yes, give details. If no, explain: **Grass seeding will be done in the fall and tree planting in the spring.**

Test plots will be used to determine optimum vegetation plans?

☐ yes ☒ no

The site will not be revegetated because:

☐ It is a rural area with a rainfall exceeding 30 inches annually and erosion will not be a problem (requires approval of DNR).

☐ Demonstration plots and areas will be used to show that active revegetation is not necessary.

☐ Revegetation is inappropriate for the approved subsequent use of this surface mine.

Explain:

Documentation is attached?

☐ yes ☐ no

### 27A. Recommended Pioneer Species

In the Sections below, check the species that will be planted at your mine site:

*\* indicates nitrogen-fixing species*

#### Western Washington Dry Areas

<input type="checkbox"/> alfalfa*	<input type="checkbox"/> Lupine*	<input type="checkbox"/> clover*	<input type="checkbox"/> orchard grass
<input type="checkbox"/> cereal rye	<input type="checkbox"/> perennial rye	<input type="checkbox"/> colonial bent grass	<input type="checkbox"/> ponderosa pine
<input type="checkbox"/> creeping red fescue	<input type="checkbox"/> red alder*	<input type="checkbox"/> Douglas fir	<input type="checkbox"/> shore pine
<input type="checkbox"/> ground cover	<input type="checkbox"/> shrubs	<input type="checkbox"/> other	

#### Western Washington Wet Areas

<input type="checkbox"/> birdsfoot trefoil	<input type="checkbox"/> sedges	<input type="checkbox"/> cedar	<input type="checkbox"/> tubers
<input type="checkbox"/> cottonwood	<input type="checkbox"/> wetland grasses	<input type="checkbox"/> creeping red fescue	<input type="checkbox"/> willow
<input type="checkbox"/> red alder*	<input type="checkbox"/> other		

#### Eastern Washington Dry Areas

<input type="checkbox"/> alder*	<input type="checkbox"/> grasses	<input type="checkbox"/> alfalfa*	<input type="checkbox"/> juniper
<input type="checkbox"/> black locust	<input type="checkbox"/> lodgepole pine	<input type="checkbox"/> clover	<input type="checkbox"/> lupine*
<input type="checkbox"/> deciduous trees	<input type="checkbox"/> ponderosa pine	<input type="checkbox"/> shrubs	<input type="checkbox"/> deep-rooted ground cover
<input type="checkbox"/> diverse evergreens	<input type="checkbox"/> other		

#### Eastern Washington Wet Areas

<input type="checkbox"/> alder*	<input type="checkbox"/> cottonwood	<input type="checkbox"/> poplar	<input type="checkbox"/> sedges
<input type="checkbox"/> serviceberry	<input type="checkbox"/> tubers	<input type="checkbox"/> willow	
<input type="checkbox"/> other			

Give planting details (stems/acres of trees and shrubs, see Forest Practices manual; lbs/acre of grass, legume, or forb mixture):

**450 Trees per acre - PONDEROSA PINE**

**Grass / Clover mix will be applied at 15 pounds / acre,**

**SEED MIX WILL CONTAIN WHITE DUTCH CLOVER, TIMOTHY, FESCUE + BROME**

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# CHECKLIST OF RECLAMATION STANDARDS RECEIVED

Describe weed control plan:

Weed free seed will be applied and all applicable state laws will be followed.

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## 27B. Planting Techniques

Revegetation at this site will require:

Ripping and tilling?

☐ yes ☒ no

Blasting to create permeability?

☐ yes ☒ no

Mulching?

☐ yes ☒ no

Irrigation?

☐ yes ☒ no

Fertilization?

☐ yes ☒ no

Importation of clay- or humus-bearing soils?

☐ yes ☒ no

Other soil conditioners or amendments?

☐ yes ☒ no

Give details:

Trees and shrubs will be planted in topsoil or in subsoil amended with generous amounts of organic matter?  
If yes, give details. If no, explain: **Organic matter will not be needed for ponderosa pine seedlings**

☐ yes ☒ no

Mulch will be piled around the base of trees and shrubs?

☐ yes ☒ no

High quality stock will be used?

☒ yes ☐ no

Trees and shrubs will be planted while they are dormant?

☒ yes ☐ no

Stock will be properly handled, kept cool and moist, and planted as soon as possible?

☒ yes ☐ no

Seeds will be covered with topsoil or mulch no deeper than one-half inch?

☐ yes ☒ no

If any answers are no, explain: **Grass seed does not require cover.**

## 28. FINAL CHECKLIST

All required maps are attached (*See Instructions for detailed requirements*)?

☒ yes ☐ no

All required cross-sections are attached (*See Instructions for detailed requirements*)?

☒ yes ☐ no

Geologic map attached (if required)?

☐ yes ☒ no

All documents submitted have the date, the name and address of the permit holder, and the application number on every page of the material?

☒ yes ☐ no

The plan contains predominantly relevant information?

☒ yes ☐ no

Have you completed the SM-6 and has it been signed by the local jurisdiction?

☒ yes ☐ no

Have you provided the SEPA checklist?

☒ yes ☐ no

Have you provided a copy of the SEPA Determination (DNS, MDNS, or DS)?

☐ yes ☒ no

Have you attached photographs?

☐ yes ☒ no

Are additional supplemental studies included?

☐ yes ☒ no

If yes, check the appropriate box(es) below:

☐ Archeological ☐ Geohydrologic ☐ Backfill ☐ Slope stability  
☐ Topsoil ☐ Flood plain ☐ Conservation ☐ Vegetation  
☐ Other

Other permits required?

☐ yes ☒ no

If yes, check the appropriate box(es) below:

☐ Shoreline permit ☐ Water Discharge Permit ☐ Solid Waste Permit  
☐ Air Quality Permit ☐ NPDS or General Discharge Permit ☐ Hydraulic Project Approval  
☐ Special or Conditional Use Permit ☐ Other

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# CHECKLIST OF RECLAMATION STANDARDS

**When signed by the applicant and approved by the Department of Natural Resources, this document and the associated maps, cross sections, reclamation narrative, and other attachments will be the approved reclamation plan for this permit that the permit holder must follow. Significant variations from the approved reclamation plan may require that a new plan be submitted to the Department for approval.**

The applicant shall be considered as the permit holder for this surface mine and shall be responsible for compliance with Chapter 78.44 RCW, Chapter 332-18 WAC, the approved reclamation plan and attachments, and the conditions of the permit if issued by the Department of Natural Resources.			
I hereby agree to comply with this plan. <i>Signature of applicant or company representative</i> 	Name and Title of Company Representative (Please print) Delbert W. Field Owner	Date signed 8-4-03	
<b>SURFACE OWNERSHIP (For New Permits Only)</b> Give names, addresses, and signatures of all individuals with possessory interest in land. (attach signed copies of this page if more than one) I verify that the applicant has my permission to mine from my land. <i>Signature of landowner(s)</i> _____ <i>Date Signed</i> 8-4-03 	<b>OWNERSHIP OF RIGHTS TO REMOVE MINERALS BY SURFACE MINING (For New Permits Only)</b> Give names, addresses, and signatures of all individuals with rights. (attach signed copies of this page if more than one) I verify that the applicant has my permission to mine this land. <i>Signature of rights owner(s)</i> _____ <i>Date Signed</i> 8-4-03 		
I hereby verify that I have seen and approved this plan. <i>Signature of landowner(s)</i> _____ <i>Date Signed</i> 8-4-03 	I hereby verify that I have seen and approved this plan. <i>Signature of rights owner(s)</i> _____ <i>Date Signed</i> 8-4-03 		
<b>FOR DEPARTMENTAL USE ONLY</b>			
Date accepted	Accepted by:	Title:	Reclamation Permit No.
Comments by Department:			

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13022

**FIELD QUARRY PROJECT**  
**DELBERT FIELD**  
**3422 HIGHWAY 231**  
**VALLEY, WASHINGTON 99181**

**RECEIVED**  
**AUG 29 2003**  
Geology and Earth

**PERMIT #**

**PROJECT DESCRIPTION**

This project is located on 40.09 acres in the Northwest quarter of Section 2, Township 30 North, Range 40 East, W.M. The site is approximately 5 miles south of Valley, Washington in Stevens County. This site falls within an unzoned portion of Stevens County. The purpose of the project is to quarry rock from the site for use off site on roads and construction projects. This purpose is consistent with land use planning for Stevens County. The topography of the site is a hilltop with moderate to steep slopes. The plan is to cut down the hilltop and grade the site to a gentle slope, which will meet the existing road locations and adjacent topography. This will be accomplished by removing the vegetation in stages as needed, removing the overburden and stockpiling it or reclaiming mined areas with it, drilling and blasting bedrock, removing shot rock and crushing as needed. Crusher will be mobile and no permanent buildings are planned at this time. The resulting slope at final reclamation will be gentler than the pre-mining slope. The site is vegetated with young sapling timber and understory brush and seedlings. Vegetation adjacent to the permit area within the property owned by the proponent will be retained to provide visual and noise buffers. The period of use of this quarry is estimated to be 30 years. Upon the realization of the proposed final site grade, the site is planned to revert back to timberland.

**TOPSOIL BUDGET PLAN**

The topography of the site and the subsequent planned post mining topography will result in adequate subsoil and topsoil retention to meet or exceed existing soil conditions on the site. In the unlikely event that there is a deficit in required soil to reclaim the site upon completion of the project, soil will be available to import from adjacent land owned by the proponent.

Field Quarry  
Delbert Field  
3422 Highway 231  
Valley, WA 99181  
Permit #

### **TOPSOIL SALVAGE & REPLACEMENT PLAN**

During the initial phase of the quarrying project, topsoil will be stockpiled adjacent to the quarry site as shown. During subsequent operations, the topsoil and overburden will be placed upon the area, which has been mined to the final slope grade in the excavation phase previous to the one from which the overburden is being removed.

### **REVEGETATION PLAN**

After placement of the topsoil it will be revegetated by seeding with a mix of grass and forbs which are suited to the dry Eastern Washington site and Ponderosa pine seedlings. Seed will be placed on site at the rate of at least 15 pounds per acre. Tree seedlings will be planted at 450 trees per acre. Natural regeneration is also expected to supplement this planting. Noxious weeds will be controlled in accordance with state laws and requirements of Stevens County.

  
Applicant Signature

Date 8-4-03

Delbert Field  
3422 Hwy 231  
Valley, WA 99181



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**Delbert Field**  
**3422 Highway 231**  
**Valley, WA 99181**

**Field Quarry**  
**9.09 acres**

## LEGAL DESCRIPTION

THAT PART OF GOVERNMENT LOTS 3 AND 4, THAT PART OF THE SW 1/4 OF THE NW 1/4, AND THAT PART OF THE SE 1/4 OF THE NW 1/4, ALL IN SECTION 2, T. 30 N., R. 40 E., W.M., STEVENS COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 2, FROM WHICH THE NORTHEAST CORNER THEREOF BEARS S 89°17'29" E 5312.34 FT.; THENCE S 70°06'10" E 905.85 FT. TO A 5/8" REBAR WITH 1-1/2" ALUMINUM CAP AND THE POINT OF BEGINNING FOR THIS DESCRIPTION; THENCE S 81°52'55" E 129.94 FT.; THENCE S 31°41'09" E 159.57 FT.; THENCE S 16°27'09" E 294.91 FT.; THENCE S 44°54'38" E 284.02 FT.; THENCE S 9°54'41" E 292.54 FT.; THENCE S 15°18'45" E 676.97 FT.; THENCE S 3°31'32" W 621.68 FT.; THENCE S 76°39'43" W 244.85 FT.; THENCE N 76°43'21" W 239.99 FT.; THENCE S 83°41'10" W 163.00 FT.; THENCE S 73°54'23" W 296.61 FT.; THENCE N 70°48'53" W 100.54 FT.; THENCE N 26°51'09" W 403.73 FT.; THENCE N 3°56'57" E 956.37 FT.; THENCE N 3°56'51" E 664.27 FT.; THENCE N 53°44'51" E 492.47 FT. TO THE POINT OF BEGINNING.

SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.

## RECORD OF SURVEY

IN GOVERNMENT LOTS 3 AND 4, IN THE SW 1/4 OF THE NW 1/4, AND IN THE SE 1/4 OF THE NW 1/4, ALL IN SECTION 2, T. 30 N., R. 40 E., W.M., STEVENS COUNTY, WASHINGTON.